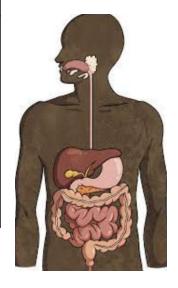
Science Knowledge Organiser Year 4 Summer 1 and 2

Animals including humans

Essential Vocabulary		
Digestive system	The digestive system breaks down food into simple nutrients such as Carbohydrates, fats and proteins.	
Oesophagus	The tube-like structure that connects the mouth to the stomach. Once you chew your food and swallow, the food travels down your oesophagus and into your stomach.	
Small intestine	A long tube-like organ that connects the stomach and the large intestine.	
Large intestine	The long, tube-like organ that is connected to the small intestine at one end and the anus at the other.	
Dental hygiene	The maintenance of the teeth and gums in healthy condition. This can be done by proper brushing and the removal of plaque.	

Key Knowledge

- Describe the simple functions of the basic parts of the digestive system in humans
- Identify the different types of teeth in humans and their simple functions.
- Construct and interpret a variety of food chains, identifying producers, predators and prey.



Key Questions

- How are our teeth different?
- How do our teeth help us eat?
- What happens to our food?
- What is a food chain?

Links to Prior Learning

- There are different nutrients to keep us healthy (Year 3)
- Fibre helps you to digest the food that you have eaten, examples of foods high in fibre include wholegrain bread, cereals and lentils (Year 3)
- There are different food types (Year 2)



Enquiry Skills - Science Disciplines

Asking relevant questions and using different types of scientific enquiries to answer them.

Setting up simple practical enquiries,

comparative and fair tests.

Making systematic and careful observations and, where appropriate, taking accurate measurements using

standard units.

Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.

Recording findings using simple scientific language, drawings,

labelled diagrams, keys, bar Charts, and tables Reporting on findings from enquiries, including oral and

written explanations, displays or presentations of results and Conclusions.

Using results to draw simple conclusions, make predictions for

new values, suggest improvements and raise further questions.

Identifying differences, similarities or Changes related to simple

scientific ideas and processes.

Using straightforward scientific evidence to answer questions to support their findings.



Non-Chronological Report



Key Knowledge

Our learning this half term will be inspired by the book Where the forest meets the sea' Jeanie Baker. It is a story based on a boy who goes on the adventure of a lifetime with his father by boat to a tropical rainforest. The boy explores the beauty and the nature of the forest, its history and its futures until it is time to eat the fish that his father has caught and cooked. Baker leaves readers feeling that if they truly immerse themselves into nature and experience it with all our senses we will want to preserve it and keep it this secret magical place and leave without a trace.

Throughout this half term children will explore the features of fiction text by giving well-structured descriptions, explanations and narratives. They will enhance their knowledge and understanding on non-fiction texts by reading and recording information that they gather. To conclude the unit of work the children will be encouraged to make a zoo information board for a rainforest exhibit.

Links to Prior Learning

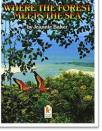
- Science- (KS1 and KS2) Animals Including Humans
- English- (KS1 and KS2) Non-Fiction texts
- Geography- (KS1 and KS2) knowledge of the continents and oceans

Key Questions

- Does the book encourage you to preserve the world we live in? If so, why?
- Why do you think there is emphasis within the book that the boys eats the fish his Dad 'Caught and Cooked'?
- Why did you choose that particular rainforest animla to make your information leaflet about?

Essential Vocabulary			
Proper noun	Proper nouns are words for specific things, people, and places. e.g. 'Max', 'Dr Prakash', and 'London'.		
Co-ordinatinon	Coordination uses conjunctions to connect two sentences with roughly equal ideas. e.g. Or, and, but		
Subordination	Subordination uses conjunctions to connect one dependent clause to an independent clause, creating a complex sentence. e.g. When, if, that, because		
Pronoun	A pronoun is a word that stands in for a noun, often to avoid the need to repeat the same noun over and over. e.g. his, hers, she, they		
Expanded noun phrase	More than one adjective used to give detail about a noun. e.g. Bright, blue sky.		
Singular noun possession	Possessive nouns are nouns that show ownership or a direct connection- using an apostrophe. e.g. Sarah's toothbrush		
Present tense	The verb form you use when you are talking about what is happening right now. e.g. I work in London.		







PSHE/RSE Knowledge Organiser Year 4 Summer 1



How can our choices make a difference to others and

	the environment?
environment	Our environment includes everything around us, like the air we breathe, the water we drink, the land we walk on, and all the plants, animals, and other living things that call Earth their home too. Our environment is made up of different ecosystems, like forests, oceans, deserts, and cities etc.
rights	A right is like a promise that everyone should have. Rights are the rules that help make sure everyone is treated fairly and respectfully. They include things like the right to be safe, the right to have your own thoughts and beliefs, the right to go to school, the right to express yourself, and many more. These rights are protected by laws and agreements, like the Universal Declaration of Human Rights, to make sure that everyone, no matter who they are or where they live, can live with dignity and freedom.
fairtrade	When you buy something that's labelled as fair trade, it means that the people who made it were paid fairly for their hard work and that the product was made in a way that respects people and the planet.
single use	Single-use means one use and then it's done thrown away or recycled. Single-use items are often things like plastic bags, straws, or disposable cups that are designed to be used once and then discarded. While they might be convenient, single-use items can create a lot of waste and pollution, which isn't good for the environment. That's why many people are trying to reduce their use of single-use items and choose more sustainable options instead.

Key Knowledge

- Understand we have a shared responsibility to look after our environment.
- Understand that some of the choices we make can impact the environment (e.g. recycling etc)
- know that what we buy and how we spend our money can affect the environment (e.g. palm oil, fairtrade goods)
- learning debating and discussion skills in the context of environmental issues
- understand how Caring and Compassionate actions and behaviours Can impact others and our environment

Key Questions

- what Choices do we have that Can impact our environment?
- do we all have a shared responsibility?
- what to our Ambassadors do at school?

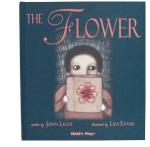
RSE No Outsiders

The Flower by John Light

Children will discuss the idea that we all have choices and why asking questions about our world is good.

Links to Prior Learning

- EYFS rights and responsibilities
- Year 1 how can we look after each other and the world?



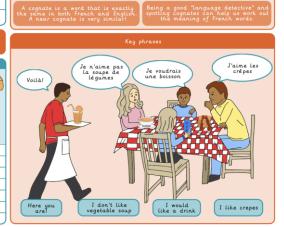
French Food - Miam, Miam! Year 4 Summer 1











Key Questions

- Can you understand a conversation in French?
- Can you read and say amounts of money in French?
- Can you pronounce the names of French shops?
- Can you work out the meaning of unfamiliar words?
- Can you create a menu in French?

Key Skills

- Listen and respond to full sentences.
- Follow a short text, listening and reading at the same time.
- Recognise familiar French words when written down.
- Recognise and answer simple questions which involve giving personal information.
- Recognise how intonation and gesture are used.
- (Jse a model to form a spoken sentence.
- Rehearse and perform a short role-play or song.
- Select and write short words and phrases.

Key Knowledge

- To know that 'h' at the start of a word in French is not pronounced.
- To know the equivalents for the word 'the' in French : le/la/l'/les and 'a/an/some': un, une, des.
- To know that the verb aimer is used to express an opinion, including with the negative form ne ... pas.
- Ordering typical French food and drink.
- To know that in French there is a formal and informal version of the word for 'you', and when to use which one.
- To know that the currency used in France is euros and to recognise some of the notes and coins.

Decimals - Number

Essential Vocabulary		
Decimal point	A point or dot after the figure.	
Tenths	The first digit to the right of the decimal point indicates the tenths	
Hundreths	The second digit to the right of the decimal point indicates the hundreths	
Equivalent	Equal in Value	
Rounding	Making a number simpler but still close to it's actual value.	

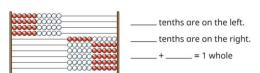
Links to Prior Learning

- In Year 3 understanding that tenths are a whole split into
- Understanding of parts and whole in Key Stage 1.

Our KIRF this half term:

 Multiply and divide single digits by 10 and 100 – do this using the place Value grid method!

0 (Tth	Hth	3 + 0.5 + 0.02 = 3.52
000	000		2 + 1.5 + 0.02 = 3.52 3.02 + 0.5 = 3.52



Our Small Steps of Learning Tenths as fractions Tenths as decimals Tenths on a place value chart Tenths on a number line Divide a 1-digit number by 10 Divide a 2-digit number by 10 Hundredths as fractions Hundredths as decimals Hundredths on a place value chart Divide a 1- or 2-digit number by 100 Make a whole with tenths Make a whole with hundredths Partition decimals Flexibly partition decimals Compare decimals Order decimals Round to the nearest whole number Halves and quarters as decimals



Key Questions

- When dividing a number by 10, how many equal parts is the number split into?
- How Can you use Counters and a place Value Chart to show dividing a number by 10?
- How can you represent hundredths in a hundred square?
- How many hundredths are there in 1 whole?
- How is the hundredths column on a place value chart similar to/different from the column?
- Does the decimal point ever move?
- How many tenths make 1 whole?
- How many equal parts is 1 whole split into for one hundredth to be one
 of the parts?
- What is the role of zero in the number 4.06?
- How could you partition the number into ones, tenths and hundredths?
- How would you write the fraction as a decimal?

Key Knowledge

- Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3)
- Recognise and write decimal equivalents of any number of tenths or hundredths
- Compare numbers with the same number of decimal places up to 2 decimal places
- Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the Value of the digits in the answer as ones, tenths and hundredths
- Solve simple measure and money problems involving fractions and decimals to 2 decimal places.
- Recognise and write decimal equivalents to 1/4, 1/2 and 3/4

Money - Measurement

Essential Vocabulary		
Pounds	The official currency of the UK. £1 is made up of 100 pence.	
Pence	The official currency of the UK. 100 pence make up £1.	
Convert	Changing value from one form to another	
Total	How much there is all together	
Change	When you pay someone more than is needed, the amount you are given back is change	
Approximate	Similar, but not exactly equal, to anything else	
Estimate	A rough Calculation of the Value, number or quantity of something	

Links to Prior Learning

- In Year 1, recognise the value of different coins
- In Year 2, add different combinations of coins and notes to make total amounts.
- In Year 2 begin to solve problems relating to money including some which involve finding change.
- In Year 3 solve problems involving change and understand how to convert from pounds to pence and vice versa.

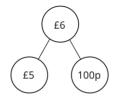
Our KIRF this half term:

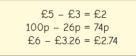
 Multiply and divide single digits by 10 and 100 – do this using the place value grid method!

Our Small Steps of Learning Step 1 Write money using decimals Step 2 Convert between pounds and pence Step 3 Compare amounts of money Step 4 Estimate with money Step 5 Calculate with money Step 6 Solve problems with money



Esther uses partitioning to work out £6 – £3.26











Key Questions

- How many pence are there in £1? How many hundredths are there in 1 one?
- What is the same and what is different about the ways of writing the amount of money? Which is easier to understand?
- How do you write 343p using a pound sign?
- Which digit tells you which amount is greater?
- What does "estimate" mean?
- What does "approximately" mean?
- How can a number line help you to add/subtract the amounts?
- Do you need to make an exchange between the pounds and pence?

Key Knowledge

• Estimate, compare and Calculate different measures, including money in pounds and pence

Time - Measurement

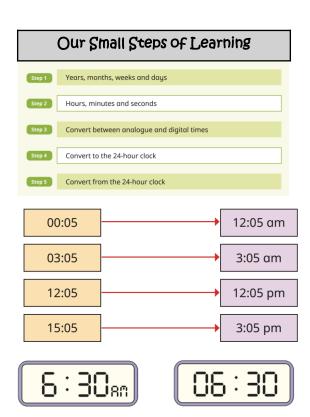
Essential Vocabulary		
Duration	How long something lasts	
Analogue	A Circular-faced clock with the numbers one to twelve around the outside and two hands, a shorter one to measure hours and a longer one to measure minutes	
Digital	A clock without hands that uses numerals to tell her time	
Compare	To view something in relation to something else	
Convert	Changing a value from one form to another	

Links to Prior Learning

- In EYFS know the routine of the day and use language to describe this.
- In nursery and reception order the events of the day
- In Reception begin to measure time in simple ways
- In Year 1 tell the time to the hour and half past the hour
- In Year 2 tell the time to the nearest 5 minutes
- In Year 3 tell the time to the nearest minute and compare durations of events

Our KIRF this half term:

 Multiply and divide single digits by 10 and 100 – do this using the place value grid method!



	January					
M	T	W	Th	F	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



Key Questions

- · How many days are there in a week?
- How many days are there in the month of?
- How many days/weeks/months are there in a year?
- What activity lasts approximately one second/minute/hour?
- Why is it important to know whether a time is am or pm?
- Does an analogue clock show whether it is am or pm?
- What is the same/different about 5 pm on a 24-hour digital Clock and on a 12-hour digital Clock?
- Do you always subtract 12 hours to convert from a 24hour clock time?

Key Knowledge

- Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days
- Read, write and convert time between analogue and digital 12- and 24-hour clocks

Roman Empire - How was the Roman Empire created?



	Essential Vocabulary
Julius Caesar	He was a Roman general and politician
	who named himself dictator of the
	Roman Empire
Colosseum	It is a large amphitheatre that hosted
	events like gladiatorial games
Amphitheatre	An open circular or oval building with
	a Central space surrounded by tiers of
	seats for spectators
Dynasties	A succession of rulers of the same
	line of descent
Emperor	The ruler of an empire
Settlements	A place where people establish a
	community
Conquer	To overcome or take control
Invade	To enter a country or region to
	occupy it

Key Knowledge

- City of Rome founded in 750BC
- There were hundreds of gods who the Romans both feared and respected – Jupiter, Mars, Neptune.
- Gods offered hope and protection to Romans.
- The Roman army was well-trained and had the best weapons and armour.
- In 60–61 CE Boudicca led the Iceni and others in a revolt against Roman rule.

Key Questions

- How was the Roman Empire created?
- How did gods and goddesses play a part in Roman life?
- What was the significance of mosaics on Roman society?
- Why was the Roman army so powerful?
- How and why did the lands within the Roman Empire change over time?
- What was the rebellion of Queen Boudicca?





Links to Prior Learning

- Use of maps, atlases and globes in geography to locate countries/ cities.
- Analysis of sources in history
- (Inderstanding of Chronology in history

Why are festivals important to religious communities?

Essential Vocabulary		
Festival	A day or period of celebration.	
Tradition	Beliefs or actions passed from generation to generation	
Shared values	A common belief or thought that is felt by multiple people.	
Fasting	To go without food or drink for a period of time.	
Preserve	To maintain something in its original or existing state.	

Links to Prior Learning

- What do we learn from sacred books? Year 2
- What does it mean to belong to a faith Community? Year 1
- · What makes some places sacred? Year 1

Key Knowledge

- Key religious festivals: Christmas, Easter, Pentecost, Harvest in Christianity, Diwali in Hinduism, Pesach, Rosh Hashanah and Yom Kippur in Judaism, Eid in Islam.
- Believers express the meaning of religious festivals through symbols, sounds, actions, story and rituals.

Key Skills

- Gather, select and organise ideas about religion and belief.
- Comment on connections between questions, beliefs, Values and practice.
- Suggest meanings for a range of forms of religious expression, including symbols, using appropriate Vocabulary.



Key Questions

- Does light conquer darkness (Diwali)?
- Is love stronger than death (Easter)?
- Can God free people from slavery (Pesach)?
- Is it good to say sorry (Yom Kippur)?
- Does fasting make you a better person? How? (Ramadan and Eid-ul-Fitr; Lent).
- Is Comic Relief day a bigger festival than Easter?
- Should everyone be allowed a day off work for their festivals?
- Is Christmas for the Christians or for everyone?
- Can the real meaning of a festival be preserved, or do the shops and shopping always take over?

The Music Year Theme: Musical Theatre (Summer 1) and Film Music (Summer 2)



Essential Vocabulary				
Pulse	The regular heartbea	t of the music; its		
	steady beat			
Rhythm	Long and short sound	ds or patterns that		
	happen over the puls	e.		
Tempo	The speed of music;	Fast, slow or in		
	between.	between.		
Pitch	The position of the n	The position of the note.		
Dynamics	How loud or quiet	ff fortissimo very loud		
	the music is.	the music is. f forte loud		
		p piano quiet		
	pp pianissimo very quiet			
	Crescendo	Getting louder		
	Diminuendo	Getting quieter		

Key Questions Listening

- What is the mood/feeling of pieces of the piece of music?
- Who is the composer/writer?
- Which genre is the piece of music?

Singing

- What are the key principles to warming up our voices?
- Is your voice ready for singing? Why/why not?

Perform (Vocal)

 What were your reflections on the live/recorded performance?

Composition

- What is the value of your dot/stick notation?
- What is the time signature in the piece of music you have composed?

Links to Prior Learning

In Spring, Year 4 have learned how to structure a performance and collaborate to produce an improvised piece of music. Children have also gained knowledge of the elements of music such as texture, timbre, structure and notation.

Key Knowledge

- The differences between pieces of Calypso music and Rhythm and Blues music and 20th Century and Bhangra music.
- How to sing rounds and partner songs in various time signatures.
- How to own the performance space and engage with the audience.

Wider Opportunities		
Listening suggestions for this term		
THE EXTLANGUAL PROPERTY OF THE PARTY OF THE	Flying by John Williams	
LONKING	Circle of Life by Elton John and Tim Rice	
MAMMA MILAS TO SHOW HE AND THE ABOUT	Can you hear the music? from Mamma Mia	
Music groups in our local area		

Music groups in our local area

- Trafford Music Service (Choirs and instrument Jessons)
- Sale Youth Choir
- One Education Music Centre
- Greater Manchester Music Hub

Year 4 – Summer 1 and Summer 2 – Music





ar 4- Sculpture and 3d- Mega Materials

Key Knowledge

- (Ise your whole arm to sketch out your design and use curved lines to represent three dimensional shapes.
- Recycled artwork can be created from any materialpaper, wire, soap- even shadows can be used to create sculpture!
- (Ise a sharp pencil to sketch out the design into the soap) and then various tools to engrave and shape. Wet your fingers and smooth the surface of the soap.
- Use your fingers or pliers to bend and twist the wire into shape. Use smaller pieces of wire to add detail and join wire by twisting and looping.

Essential Vocabulary

hollow	Having a hole or empty space inside.
mesh	Material made of a network of wire or thread.
organic	Things that are natural or related to nature.
template	A shaped piece of rigid material used as a pattern for processes such as cutting out, shaping or drilling.
typography	The art of designing and arranging letters to make them look appealing.
visualisation	Any technique for creating images, diagrams, or animations to communicate a concrete or abstract message.
weaving	The craft of lacing fibres together to make fabric or cloth.
welding	The process of fusing two or more parts using heat,

Links to Prior Learning

EYFS- Sculpture and 3d- Creation Station

pressure or both.

- Year 1- Sculpture and 3d- Paper Play
- Year 2- Sculpture and 3d- Clay Houses
- Year 3- Sculpture and 3d-Abstract Shape

Key Questions

- How do I plan out my large scale sculpture representing 3d using 2d shapes?
- What recycled materials can I use to Create a 3d artwork?
- How can I carve, model and refine my sculpture when working with soap?
- How can I create sculptures using wire?
- Where can I see wire sculptures by well known artists in the UK?

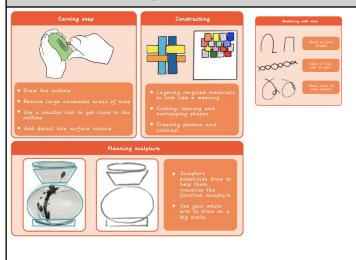
Artists

- Barbara Hepworth (1903) was a driving force in the modern sculpture movement and created abstract sculpture.
- Sokari Douglas Camp (1958) Creates her large scale sculptures mainly from steel and makes reference to her Nigerian roots.









Where can I see sculptures?

Locally

Ben Baker is an artist from Falmouth in Cornwall who creates wire sculptures with working mechanisms. You can view some of his artwork at the Manchester Central Art Fair this autumn.

Nationally

Robin Wright is an artist from Staffordshire who creates sculptures of fairies with dandelions from stainless steel wire. The 'Fairy Trail' features many of his sculptures and can be found in Stoke on Trent.



Year 4 - Summer 1 - Computing

Creating Media: Photo editing

Essential Vocabulary	
Digital	File that Can be opened on a Computer
Crop	Cut parts of a picture.
Rotate	Turn a picture.
Undo	Reverse a change.
Hue	Colour shade.
Saturation	Colour intensity.
Sepia	Old-fashioned colour effect.
Vignette	Darken edges of a picture.
Retouch	Improve a picture.
Clone	Make a copy of part of a picture.
Paste	Insert a copied picture.
Combine	Merge pictures together.
Made up	Created digitally.
Composite	Mixture of elements.
Digital	File that Can be opened on a Computer

Links to Prior Learning

This unit progresses children's knowledge and understanding of digital photography and using digital devices to Create media. Children have had some exposure to images and their manipulation through the Teach Computing Digital Photography- Year 2 unit.

Key Knowledge

- Improve an image by rotating it
- · Explain why I might crop an image
- (Jse photo editing software to crop an image
- Explain that different colour effects make you think and feel different things
- · Experiment with different colour effects
- Explain why I chose certain colour effects
- Add to the composition of an image by cloning
- · Identify how a photo edit can be improved
- Remove parts of an image using cloning
- Experiment with tools to select and copy part of an image
- Use a range of tools to copy between images
- Explain why photos might be edited
- Describe the image I want to create
- · Choose suitable images for my project
- Create a project that is a combination of other images
- Review images against a given criteria
- Use feedback to guide making changes
- · Combine text and my image to complete the project

Online Safety

Health, wellbeing and lifestyle

I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms)

I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs.



Key Questions

How do we use digital tools to edit and enhance images on a computer?
What are some common image editing techniques, such as cropping, rotating, and adjusting colours?
Why is it important to consider the background and foreground when editing images?
Can you explain the difference between a real image and a composite image? How are they created differently?

Key Skills (NC Skills)

Select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information

Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact